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| 09/842,634 | 04/27/2001 | Kazumi Fujii | Q64245 | 8848 |

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EXAMINER

SHIPSIDES, GEOFFREY P

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/842,634

Applicant(s)

FUJII, KAZUMI

Examiner

Geoffrey P. Shippides

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 10.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over European Patent Application EP-0767116-A2 (Pedersen).

Pederson teaches a method of producing a conduit-scraping conveyor for conveying food to a plurality of feeding places in a stable (Abstract, lines 1-2). This conduit-scraping conveyor consists of a cable having discs disposed thereon in a predetermined spacing relation (Figure 1; Abstract, lines 3-5). Pederson teaches a method of forming this conduit scraping conveyor by injection molding flight discs directly onto the steel cable and molding an elastic coating layer between neighboring flights on to the cable (Abstract, lines 14-25; Figure 1). Pederson teaches that polypropylene or polyamide based elastomers could be used to coat the cable (Column

3, lines 3-7) which constitute synthetic resins. Pederson teaches that polypropylene or polyamide can be used to produce the flights (Column 3, lines 3-7), which constitute synthetic resins. Pederson teaches a method of first forming the flights (disks) that include sockets (flange or boss parts) on to the cable followed by forming the cable coating between the flights and also on to the sockets (Figure 1). The socket part of the flight has protrusions that secure good fixation of the ends of these protrusions and the wire coating (Column 3, lines 39-42). As can be seen in Figure 1, in between these protrusions are depressions in the sockets and the material forming the cable coating forms corresponding protrusions that fit with the depressions and depressions on the socket part (Figure 1).

Even if Pederson does not teach that the cable coating is formed against the radial extending surface of flight, it would have been obvious to one having ordinary skill in the art at the time of invention to further extend the cable coating along the socket up to the radial extending surface of the flight to provide additional protection against the possible exposure of the steel cable. It is further noted that even if Pederson teaches a socket with a configuration that does not exactly meet the configuration as claimed, it would have been obvious to use any socket configuration.

Claim Rejections - 35 USC § 103

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application EP-0767116-A2 (Pedersen) in view of U.S. Patent No. 3,992,503 (Henfrey et al.).

Pederson teaches a method of producing a conduit-scraping conveyor for conveying food to a plurality of feeding places in a stable (Abstract, lines 1-2). This conduit scraping conveyor consists of a cable having discs disposed thereon in a predetermined spacing relation (Figure 1; Abstract, lines 3-5). Pederson teaches a method of forming this conduit scraping conveyor by injection molding flight discs directly onto the steel cable and molding an elastic coating layer between neighboring flights on to the cable (Abstract, lines 14-25; Figure 1).

Pedersen also teaches that the solution of forming flights and cable coating out of the same material in an injection molding technique has been examined but dropped due to the lack of a material that could fulfill both the requirements for sties for the flights and the flexibility for the coating parts (Column 2, lines 21-28). Although Pedersen suggests that a suitable, single material has not been found for both the disc and the rope coating, Pedersen teaches that the general process of unitary formation is known and has been tried. Pedersen does not specifically teach how such a process is directly carried out, however, Henfrey et al. teaches a method of injection molding pipe (title) that has outer ridges against an inner mold part (Figure 2) by sequentially moving previously molded sections into engagement with the mold such that the formed part forms a closure for the mold cavity (Abstract, Figure 2) such that the next section of pipe could be injection molded). It would have been obvious to one having ordinary skill in the art at the time of invention to create a conduit scraping conveyor as taught by Pederson by a method of forming an indefinite length article with ridges by injection molding as taught by Henfrey et al. in order to facilitate the molding process by reducing

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the number of molding steps. It would have been further obvious to one having ordinary skill in the art at the time of invention to use a suitable material that meets both the flexibility and rigidness required for the cable coating and the flights respectively as taught by Pederson if such a material is found to exist in order to simplify the molding process of such a product.

Henfrey et al. also teaches a "stepped diameter as at 14" (Column 3, line 20) to improve the connective strength between sections of pipe formed (Figure 2); this structure constitutes a fitting hole. It would have been further obvious to one having ordinary skill in the art at the time of invention to incorporate the use of fitting holes as taught by Henfrey et al. into the molding steps in order to produce a better connection between sequentially molded parts of the conduit scraping conveyor molded in the method as taught by Henfrey et al.

It would have been further obvious to one having ordinary skill in the art at the time of invention to mold the sequentially molded parts directly onto a cable as taught by Pedersen instead of against an inner mold part as taught by Henfrey et al. so as to have the molded part molded directly against the cable as taught by Pedersen and it would have been obvious for one having ordinary skill in the art to do this in order to create the integral connection between the coating, flights, and cable as taught by Pedersen. It would have been further obvious to one having ordinary skill in the art at the time of invention that a cable could have and would have been substituted for the core mold part as taught by Henfrey et al. in order to achieve the desired results as

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discussed above because a cable constitutes the same cross sectional shape as the core member as taught by Henfrey et al.

5. Claims 9 and 14-17 is rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application EP-0767116-A2 (Pedersen) in view of U.S. Patent No. 4,373,113 (Winkler et al.).

Pederson teaches a method of producing a conduit-scraping conveyor for conveying food to a plurality of feeding places in a stable (Abstract, lines 1-2). This conduit-scraping conveyor consists of a cable having discs disposed thereon in a predetermined spacing relation (Figure 1; Abstract, lines 3-5). Pederson teaches a method of forming this conduit scraping conveyor by injection molding flight discs directly onto the steel cable and molding an elastic coating layer between neighboring flights on to the cable (Abstract, lines 14-25; Figure 1).

With regard to claim 9, Pederson does not specifically teach that the order of molding the elastic coating layer and the flight discs can be reversed, but Winkler et al. teaches the molding of a similar structure where the substantially even coatings (ref. No. 2) are first molded in a spaced relationship (with a groove in between the coating portions) followed by the molding of a profiled part (ref. No. 4). It would have been obvious to one having ordinary skill in the art at the time of invention to reverse the order of the molding operation of Pederson as taught by Winkler et al. in order to better secure the ends of the cable coating portions.

With regard to claims 14-17, it is well known in the art to design molded parts in order to ensure that the parts are well connected. It is the examiner's position that

minus the showing of unexpected results, that the optimal width of the grooved formed between coating portions would have been determine through routine experimentation based upon the size of the flight, the wire, and the thickness of the coating layer in order to find the spacing that would result in the best overall connection between the flight, the wire, and the coating.

Response to Arguments

6. Applicant's arguments in coordination with the amendments presented, see Paper #9, filed 2-26-03, with respect to the rejections over 35 U.S.C. 112, first and second paragraph, have been fully considered and are persuasive. The rejections over 35 U.S.C. 112, first and second paragraph, of claims 9-17 have been withdrawn.

7. Applicant's arguments with regard to the rejections of claims 12 and 13 under 35 U.S.C. 102 and 35 U.S.C. 103 are not found to be persuasive.

The applicant seems to attempt to differentiate the Pedersen reference from the claimed process (in claims 12 and 13) by asserting that "substantially up to" is an admission of novelty. This is not an admission of novelty, as the examiner has interpreted the claim language of "extending to said radial surface" as being met by the Pedersen reference as the coating goes substantially up to the radial surface in the figures of Pedersen. There is no definitive location where the radial surface of the flight as taught by Pedersen stops and starts, merely an allegation of one. The examiner backs up his position with motivation for extending the coating further along the length of the flight as taught by Pedersen by stating that it would have been obvious to one having ordinary skill in the art at the time of invention to further extend the coating along

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the length of the flight in order to increase the protection offered by the coating.

Pedersen does not specifically teach that this coating does not extend up to the radial surface of the flight, but is silent in this regard. It is clear, though, that Pedersen desired a coating that extends substantially over the entire length of the boss part and substantially up to the radial surface of the flight and it would have been obvious to one having ordinary skill in the art at the time of invention to further extend this coating to provide additional protection. Pedersen never excludes the potential for the coating to extend further along the flight than pictured and it is clear from the teachings of Pedersen that slight adjustments in the shape of the flight and the coating are well within the teachings of Pedersen.

8. Applicant's arguments with regard to the rejection of claims 10 and 11 under 35 U.S.C. 103 are not found to be persuasive.

It is noted that the after final amendment cancels claim 10 and amends claim 11 to make claim 11 in independent form.

The applicant addresses the arguments made by the examiner with regard to claims 10 and 11 in Paper # 7. The applicant asserts that there is no disclosure of how a single integrated structure was made. (It is assumed here that "how it was done," means how the structure was made). The applicant further states, "whatever the process, it was unsuccessful." The examiner traverses this argument because although Pedersen does not teach how the product was made, he does not imply that the process of attempting to make the product was unsuccessful, but simply states that the product was inferior, but this is still an admission that the product is a known product.

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Because Pedersen does not teach how this product was made, it is combined with Henfrey et al. in order to provide a method to produce this known product. Pedersen and Henfrey et al. are in the same field of endeavor as Pedersen teaches a product of indefinite length of a non-continuous cross section and Henfrey et al. teaches a process of forming such a product. It would have been obvious to one having ordinary skill in the art at the time of invention to look to Henfrey et al. to find a method to form the known product (as taught by Pedersen).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one having ordinary skill in the art at the time of invention would have looked towards a process of molding a indefinite length rigid article, such as the process as taught by Henfrey et al., in order to produce the known article as taught by Pedersen. No specific teaching in the disclosures of the references needs to be present to motivate a combination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey P. Shipsides whose telephone number is 703-306-0311. The examiner can normally be reached on Monday - Friday 9 AM till 5 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Geoffrey P. Shipsides/gps
March 31, 2003



MARK EASHOO, PH.D
PRIMARY EXAMINER

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31/Mar/03